REMARKS

Summary of Changes Made

The application was originally filed with claims 1-21. This amendment amends claim 1 adding the subject matter of claims 8 and 13, which are canceled. Claims 20 and 21 are amended to correct minor punctuation or spelling errors. New claim 22 is added. Accordingly, claims 1-7, 9-12, 14-22 (20 claims) remain pending in the application. No new matter is added hereby.

Claim Objections

Claim 21 is objected to because the claim is missing a period at the end of the sentence. The Examiner will note that that a period has been added. Claim 20 also had an unnoticed spelling/grammar error (agent) which has been amended to "agents."

Claim rejections - 35 U.S.C. 102(b) – (Watanabe)

Claims 1, 6-8 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe, et al., U.S. 4,603,047, ("Watanabe") . The Examiner asserts that the claimed invention is a composite powder comprising a flaky substrate powder and barium sulfate particles or zinc oxide particles that adhere, in protrusions, to the surface of the substrate powder. The Examiner contends that Watanabe teaches flaky substrates, such as mica, with a firmly adhering coating of barium sulfate that is used in cosmetics. The Examiner quotes col. 1, lines 49-60; col. 2, lines 3-8; col. 3, lines 46-49; and examples 7 and 12-14, and concludes that the indicated claims are anticipated by Watanabe.

The Examiner will note that that claim 1 has been amended to include the subject matter of claims 8 and 13, the latter two being canceled. The rejection of claim 8 is hence moot. Because Watanabe fails to teach the limitations of claim 13, it is believed that claim 1 is now patentable thereover. Because claims 6, 7, and 15 all depend from claim 1, it is believed that they are similarly novel and patentable over Watanabe. Watanabe further fails to disclose that the $BaSO_4$ or ZnO are adhered to the substrate particles in the form of protrusions. That is, the instances of $BaSO_4$ or ZnO on the surface of the instantly claimed substrate particles come as irregularly shaped islands, and not a continuous covering. Such protrusions are a result of the use of seed particles which act as nuclei for crystallization of $BaSO_4$ or ZnO. Applicants note that

Watanabe discloses that metal oxides can also be precipitated on the pigment, col. 2, lines 17-21. Such metal oxides cannot be considered seed particles because they do not act as crystallization nuclei. Indeed, the oxide particles of Watanabe are precipitated, that is, applied **onto** the pigment, **after** the pigment is coated onto the substrate particle. Any crystallization of $BaSO_4$ (pigment) that may occur in the synthesis of Watanabe's particles necessarily occurs before the oxide particles are added. Such oxide particles cannot then act as seed particles (as contended below by the Examiner in the rejection under Section 103 over Watanabe alone. Based on the foregoing, Applicants respectfully request withdrawal of the rejection.

Claim Rejections - 35 U.S.C. 102(b) – (Noguchi)

Claims 1, 6-8 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Noguchi et al., U.S. 5,380,360, ("Noguchi"). The Examiner contends that Noguchi teaches flaky pigments with a barium sulfate coating where the barium sulfate grain size is from 0.5 to 2.0 microns and their use in cosmetics as extender pigments for face powder with excellent skin adhesiveness are known in the art, col. 1, lines 8-20. The Examiner further cites col. 2, lines 24-36 and 67-68; col. 3, lines 3-7 and 28-30; col. 11, lines 13-27 of Noguchi and concludes that the limitations of claims 1, 6-8 and 15 are anticipated by the disclosures thereof.

The Examiner will note that that claim 1 has been amended to include the subject matter of claims 8 and 13, the latter two being canceled. The rejection of claim 8 is hence moot. Because Noguchi fails to teach the limitations of claim 13, it is believed that claim 1 is now novel and patentable thereover. Because claims 6, 7, and 15 all depend from claim 1, it is believed that they are similarly patentable. Noguchi further fails to disclose that the $BaSO_4$ or ZnO are adhered to the substrate particles in the form of protrusions. That is, the instances of $BaSO_4$ or ZnO on the surface of the instantly claimed substrate particles come as irregularly shaped islands, and not a continuous covering. Such protrusions are a result of the use of seed particles which act as nuclei for crystallization of $BaSO_4$ or ZnO. Noguchi utterly fails to disclose such a limitation. Applicants respectfully request withdrawal of the rejection.

Claim Rejections - 35 U.S.C. 102(b) – (Noguchi '019)

Claims 1-3, 6, 12, 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Noguchi et al., U.S. 4,956,019, ("Noguchi '019"). The Examiner contends that Noguchi '019 teaches a flaky colored pigment comprising fine flaky powder as base material and zinc oxide attached to the surface, col. 1, lines 6-10. Fine flaky particles that form the base material include mica-titanium oxide complexes and the amount of zinc oxide in the finished pigment is about 5 to 70% based on the total weight of the flaky color pigment, col. 1, lines 37-46. The Examiner contends that methods of making the flaky pigment are disclosed, col. 1, line 47 to col. 2, line 21. The Examiner further cites col. 1, lines 29-34; Example 8; col. 5, line 59 to col. 6, lines 7 and 26-45; and Example 10 and concludes that the limitations of claims 1-3, 6, 12, 13 and 15 are anticipated by the teachings of Noguchi '019.

The Examiner will note that that claim 1 has been amended to include the subject matter of claims 8 and 13, the latter being canceled. The rejection of claim 13 is hence moot. Because, as admitted by the Examiner, Noguchi '019 fails to teach the limitations of claim 8, it is believed that claim 1 is now patentable thereover. Because claims 2, 3, 6, 12, and 15 all depend from claim 1, it is believed that they are similarly patentable. Noguchi '019 further fails to disclose that the $BaSO_4$ or ZnO are adhered to the substrate particles in the form of protrusions. That is, the instances of $BaSO_4$ or ZnO on the surface of the instantly claimed substrate particles come as irregularly shaped islands, and not a continuous covering. Such protrusions are a result of the use of seed particles which act as nuclei for crystallization of $BaSO_4$ or ZnO. Noguchi '019 utterly fails to disclose such a limitation. Applicants respectfully request withdrawal of the rejection.

Claim Rejections - 35 U.S.C. 103(a) – (Noguchi '019/ Noguchi '666)

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi '019 in view of Noguchi et al., U.S. 6,086,666, ("Noguchi '666"). The Examiner admits from the previously mentioned teachings of Noguchi '019, it fails to expressly teach the shape of the barium sulfate or the zinc oxide particles. Accordingly, the Examiner cites Noguchi '666 for its alleged teaching of coating a flaky (i.e. platelet shaped) powder with particles of zinc oxide and barium sulfate. col. 2, lines 8-11. The particles of barium sulfate have an average diameter of 0.1 to 2.0 microns and are essentially platelet shaped, whereas zinc oxide is needle-shaped with an

average major-axis (i.e. long axis) diameter of 0.05 to 1.5 microns, col. 2, lines 18-28. Further details about the manufacturing process and the particles themselves are cited by the Examiner at col. 2, lines 30-46; col. 3, lines 3-16, 23-36, 48-51; col. 8, claims 4 and 5, all of which lead the Examiner to conclude that it would have been obvious to make a flaky pigment with a mica-titanium oxide complex as the base material and zinc oxide particles as the coating, as suggested by Noguchi '019, combine it with the needle-shaped zinc oxide coating and platelet shaped barium sulfate coating of a flaky powder, as taught by Noguchi '666, and produce the instant invention. The Examiner cites motivations for the combination at col. 2, lines 52-59 of Noguchi '666. Applicants further acknowledge (but do not agree with) the Examiner's assertions with respect to each individual claim 1-15.

For all of their cited teachings, as noted above, neither Noguchi patent recites that the $BaSO_4$ or ZnO are adhered to the substrate particles in the form of protrusions. Such coatings in the Noguchi patents thus cover their respective substrate particles in essentially a continuous covering, which would amount to essentially the entire surface area of such particles. That is, the instances of $BaSO_4$ or ZnO on the surface of the instantly claimed substrate particles come as irregularly shaped islands, and not a continuous covering. Such protrusions are a result of the use of seed particles which act as nuclei for crystallization of $BaSO_4$ or ZnO. These differences, taken together with the amendment to claim 1 requiring specific coverage levels of the substrate particles, render the instant claims non-obvious and patentable over the combination of the two cited Noguchi patents. Applicants respectfully request withdrawal of the rejection.

Claim rejections - 35 U.S.C. 103(a) – (Watanabe)

Claims 16 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe. The teaching of Watanabe with respect to coating a substrate with barium sulfate is stated above. The Examiner admits that Watanabe does not expressly teach seed particles that are allowed to coexist in a slurry solution of the flaky substrate powder and concludes that it would have been obvious to use the method of coating a substrate with barium sulfate particles, as taught by Watanabe, and modify the process by adding seed particles during the process of routine experimentation. The Examiner finds motivation in an alleged teaching of Watanabe that seed particles such as metal oxides can also be precipitated on the pigment. col. 2,

lines 17-21. Seed particles, as disclosed in the instant specification, include titanium oxide and zinc oxide, paragraph [0084]. Since titanium dioxide, zinc oxide and aluminum oxide are disclosed by Watanabe, one with ordinary skill in the art would find it obvious to include them in the process of coating a substrate. In this case the titanium oxide and other metal oxides would act as the seed particles upon which the particle would start forming. Regarding each noted claim, the Examiner cites Watanabe at col. 1, lines 49-60; col. 2, lines 17-21; col. 3, lines 49-53, and Examples 7 and 12-14 as support for the allegation that the claims are obvious.

As discussed above, the oxide particles of Watanabe cannot be seed particles as instantly disclosed and claimed. Applicants note that Watanabe discloses metal oxides that are precipitated on the pigment, col. 2, lines 17-21. Such metal oxides cannot be considered seed particles because they do not act as crystallization nuclei. Indeed, the oxide particles of Watanabe are precipitated, that is, applied **onto** the pigment, **after** the pigment is coated onto the substrate particle. Any crystallization of $BaSO_4$ (pigment) that may occur in the synthesis of Watanabe's particles necessarily occurs before the oxide particles are added. Such oxide particles cannot then act as seed particles.

Based on the foregoing, the use of seed particles is not obvious from Watanabe because Watanabe fails to disclose anything that might reasonably act as a seed particle. Applicants respectfully request withdrawal of the rejection of claims 16 and 18-19.

Claim Rejections - 35 U.S.C. 103(a) – (Watanabe/Noguchi)

Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe in view of Noguchi. The teachings of Watanabe are set forth above. The Examiner admits that Watanabe does fails to expressly teach a complexing agent. The teaching of Noguchi with respect to the process of making a fine granular barium sulfate-coated flaky pigment with a complexing agent is stated above with the Examiner's citation of col. 2, lines 24-36 of Noguchi. The Examiner concludes that it would have been obvious to use the method of coating a substrate with barium sulfate particles, as taught by Watanabe, and modify the process by adding seed particles during the process of routine experimentation, combine it with the process of making a fine granular barium sulfate-coated flaky pigment with a complexing agent, as taught by Noguchi, and produce the instant invention. One with ordinary skill in the art would do so

because Noguchi teaches that a complexing agent is capable of forming a complex compound with the barium ion which leads to formation of particles on the surfaces of the fine flaky pigment grains, col. 2, lines 24-36. Regarding instant claims 20-21, the limitation of the complexing agent would have been obvious over the complexing agent taught by Noguchi, col. 2, lines 24-36. The amount of complexing agent recited in instant claim 21 is assertedly a controllable parameter and would have been an obvious variant during the process of routine experimentation unless there is evidence of criticality or unexpected results.

As stated amply above, Watanabe fails to disclose a seed particle, which is a key limitation of claim 16, from which claims 20 and 21 depend. Noguchi also fails to disclose a seed particle. Hence, claims 20 and 21 fall outside the combined scope of Watanabe and Noguchi. While asserting the patentability of claims 20 and 21, Applicants respectfully request the withdrawal of the rejection.

Claim rejections - 35 U.S.C. 102(b) – (Noguchi '019/Watanabe)

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi '019 in view of Watanabe. While the teachings of Noguchi '019 are noted above, the Examiner admits that such teachings do not include that seed particles are allowed to coexist in a slurry solution of the flaky substrate powder. The Examiner contends that Watanabe teaches seed particles such as metal oxides that can also be precipitated on the pigment, col. 2, lines 17-21. It would have been obvious to use the method of coating a substrate with zinc oxide particles, as taught by Noguchi '019, combine it with the metal oxides that can also be precipitated on the pigment, as taught by Noguchi '019, and produce the instant invention. One with ordinary skill in the art would do so because Watanabe teaches that seed particles such as metal oxides can also be precipitated on the pigment, col. 2, lines 17-21. Seed particles, as disclosed in the instant specification, include titanium oxide and zinc oxide, paragraph [0084]. Since titanium dioxide, zinc oxide and aluminum oxide are disclosed by Watanabe, one with ordinary skill in the art would find it obvious to include them in the process of coating a substrate. In this case the titanium oxide and other metal oxides would act as the seed particles upon which the particle would start forming.

As discussed above, the oxide particles of Watanabe cannot be seed particles as instantly disclosed and claimed. Applicants note that Watanabe discloses metal oxides that are

precipitated on the pigment, col. 2, lines 17-21. Such metal oxides cannot be considered seed particles because they do not act as crystallization nuclei. Indeed, the oxide particles of Watanabe are precipitated, that is, applied **onto** the pigment, **after** the pigment is coated onto the substrate particle. Any crystallization of $BaSO_4$ (pigment) that may occur in the synthesis of Watanabe's particles necessarily occurs before the oxide particles are added. Such oxide particles cannot then act as seed particles.

Hence, the basis for the instant rejection fails. Applicants respectfully submit that claim 17 is patentable over Noguchi '019 in view of Watanabe and request withdrawal of the rejection.

Claim Rejections - Obviousness-Type Double Patenting – (Application No. 10/471,087)

Claims 1, 15 and 16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 and 7-11 of copending Application No. 10/471,087 (" '087"). Although the conflicting claims are not identical, they are not patentably distinct from each other because instant claims are directed to a composite powder with a flaky substrate powder and a method of producing the barium sulfate coated composite powder while claims of '087 are directed to a process for producing a barium sulfate based powder. The difference is the substrate powder of instant claims and the specific metallic ions of claims of '087. The specific metallic ions are described in the instant specification and include lithium, sodium, potassium and magnesium ions in paragraph [0093]. Therefore, the Examiner concludes, the instant claims are obvious over the claims of '087.

Applicants have reviewed the claims as they currently stand in the cited copending application, as presented in the Amendment/RCE filed 6 September 2008 in the prosecution of App. Ser. No. 10/471,087 (available on PAIR). The main claim recites, essentially, a process of making a barium sulfate based powder comprising bringing barium ions derived from one of several sources into contact with sulfate ions derived from one of several sources in the presence of a metallic ion species derived from one of several metallic chlorides. The claims are directed to making what is essentially a doped barium sulfate, or a barium sulfate that includes a portion of metallic ions. As admitted by the Examiner, the powder of '087 is a barium sulfate that lacks a substrate particle. The connection between the two is so casual—barium sulfate—as not to properly constitute the basis for an obviousness rejection of any kind. Applicant submits that the

instant claims are unrelated to the cited copending application except for the presence of barium sulfate, and respectfully requests withdrawal of the provisional rejection.

Claim Rejections - Obviousness-Type Double Patenting – (Application No. 11/721,472)

Claims 1-3, 7, 12 and 15 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4-5, 10 and 13 of copending Application No. 11/721,472 (" '472"). Although the conflicting claims are not identical, the Examiner contends that they are not patentably distinct from each other because the difference is that claims of '472 include a hydrophobizing agent and a cationic surfactant. The examiner concludes that it would have been obvious to use the barium sulfate coated particles in a cosmetic as disclosed in instant claims and add hydrophobizing agents and surfactants depending on the desired cosmetic usage. For example, surfactants and hydrophobizing agents would be added for lotions and creams.

The '472 application discloses "a modified powder that is obtained by coating the surface of base powder with a hydrophobizing agent and a cationic surfactant," (claim l) as well as the use of barium sulfate and zinc oxide as a "base powder," paragraph [0033]. The modified powder of '472 is made by coating it with a hydrophobizing agent and a cationic surfactant on the surface of a base powder which is either barium sulfate or zinc oxide. Thus, it does not correspond with the composite powder of the present invention, which is a substrate powder bearing a coating, which coating can be either barium sulfate or zinc oxide on the surface of substrate powder. Simply put, in the present invention, the **coating** is barium sulfate or zinc oxide, while in the cited '472 application, the **base powder** (i.e., substrate) is barium sulfate or zinc oxide. The two are unrelated. Accordingly, In addition, the composite powder of the present application is not obvious from any other cited applications. Therefore, the present invention is not related to the invention of '472, and they are patentably distinct from each other.

Notwithstanding the foregoing, the rejection is improper based on the following. The cited application has an international application date of 13 December 2005 some 15 months **after** the U.S. filing date of the instant application. The rejection is thus improper on this basis. Any discussion of a terminal disclaimer is best left to the prosecution of the later filed '472 application. Applicants respectfully request withdrawal of the provisional rejection.

CONCLUSION

Based on the foregoing, the Applicants respectfully request entry of the instant amendment and a Notice of Allowability for claims 1-7, 9-12, and 14-22. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application. If there are any additional fees resulting from this communication, please charge the same to our Deposit Account No. 18-0160, our Order No. IWI-15684.

Respectfully submitted,

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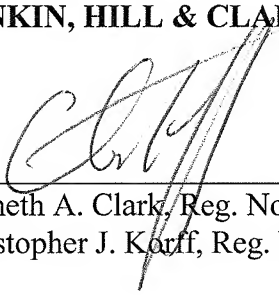

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